WILLMORE WILDERNESS PARK

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Introduction

Willmore Wilderness Park, established on April 7, 1959, preserves the natural beauty and wilderness character of the area, and provides opportunities for wilderness recreation and education. It was first named Wilderness Provincial Park, but in 1965 was renamed Willmore Wilderness Park in memory of the late Honourable Norman Willmore. As Minister of Lands and Forests, Mr. Willmore did much to effect establishment of the Park. Willmore is located in west central Alberta. It is bordered on the west by the Province of British Columbia, and on the south by Jasper National Park.

When created, Willmore was 5,570 square kilometres in size. The Wilderness Provincial Park Act of 1959, under which Willmore was established, permitted boundary changes to enlarge or diminish the size of the Park. It has seen two such changes, one in 1963 and one in 1965, which subsequently reduced the size of the Park to its current 4,597 square kilometres.

Willmore is of prime importance to wildlife. In spite of the fact that it comprises a relatively small proportion of the mountain region of the province, it contains unexpectedly high proportions of some species. For example, almost 20% of Alberta's mountain goats and 20% of its bighorn sheep are found in Willmore. In fact, Willmore represents some of the last unexploited range of many wildlife species.

Over the years, public use and awareness of the Park have increased significantly, as has the Government's commitment to manage Willmore "for the enjoyment of future generations" (Willmore Wilderness Park Act, 1970).

Biophysical Resources

- Natural Features

  The landscape of Willmore Wilderness Park is characterized by foothills and mountainous terrain. The foothills occupy the eastern corner of the Park, while the remaining area is dominated by northwest-trending Rocky Mountain ranges.

  The foothills region consists of northwest-trending ridges composed of easily erodible sandstone and shales. Pine forests dominate these ridges. On southwest-facing slopes, dry winds have created open grasslands bordered by trembling aspen. These grassy slopes are located in the Hoff, Berland and Persimmon ranges. They provide excellent winter range for sheep and goats.

  Petroleum and coal exploration in the foothills and front ranges in the 1960's left a number of trails and seismic lines. Although they have seen some re-vegetation, these trails still provide good hiking and riding routes through the dense forests of the foothills.

  Local relief of the Rocky Mountain ranges increases to the southwest, from 300 metres in the northeast to over 1,500 metres in the southwest, where the Park boundary is also the Continental Divide. A number of peaks along the Divide exceed 3,050 metres in elevation.

  The headwaters areas of Willmore, primarily along its southern and western borders, have broad grassy flats across the valley bottoms with sub-alpine forests dominating the slopes. In the lower, well-drained valleys, the sub-alpine forests grow to the banks of the rivers. The forest cover consists of lodgepole pine and white spruce at lower elevations, but as it nears tree line, sub-

alpine fir dominates. Tree line, which occurs at approximately 2,000 metres, is rarely well defined, with scattered fir pockets extending into the alpine meadows above. The alpine meadows are important as summer range for ungulates, which graze on the grasses, sedges and mosses.

The major rivers within Willmore are the Smoky, Berland, Wildhay, Sulphur, Jackpine and Muddywater. With the exception of the Smoky, all originate in the Park. The Park's eastern rivers are relatively small and present few problems for travellers, while the western rivers are often impossible to ford safely, especially during periods of peak run off. This is due to the greater snowfall and large drainage basins of western Willmore.

Glaciers are present on some of the high mountains, the most formidable of which is the Resthaven Glacier, which extends into Willmore from Jasper National Park.

Willmore offers spectacular scenery, with incredible views from mountain peaks on the Continental Divide and lovely alpine flowers blooming in summer. The numerous waterfalls and rapids on the rivers and streams, the wide diversity of flora and fauna, the craggy mountain peaks and cliffs, and the vast expanse of wilderness leave a lasting impression on all who view them.

➢ Flora

Willmore is located in a dynamic and highly diverse area of Alberta wilderness. Covering both foothill and mountain landforms, it receives boreal and cordilleran climate influences with significant variation in temperature, elevation, slope and precipitation. The result is a wide array of plant communities in transition across the span of the Park. These plant communities comprise three ecological sub-regions. Higher elevations in the main body of the Park are represented by alpine and sub-alpine sub-regions, with only limited corridors along the lower-elevation river valleys indicative of the upper foothills sub-region.

The non-forested alpine sub-region lies above tree line, over 2000 m in elevation. Poorly developed soils, cool temperatures, very short growing seasons and extremes in exposure limit the ability of these areas to produce vegetation. The vegetation here consists primarily of upland sedges, alpine grasses, moss and lichen, dwarf herbs and dwarf shrubs.

The sub-alpine sub-region is the most extensive sub-region in the Park, lying from approximately 1500 to 2000 m in elevation. Variations in the microclimates of mountain slopes, valleys and ridges are important influences on the type of vegetation that grows in these areas. Lodgepole pine-dominated forests occur on south, east and west-facing aspects, particularly where the frequency of disturbances (such as fire) is high. Engelmann spruce, white spruce and sub-alpine fir dominate north aspects and moist west and east slopes where fire frequency is low. Exposed south-facing slopes often contain scattered grasslands, which are important habitat for sheep, goats and elk. Depressional areas with poor drainage are dominated by black spruce bogs, fens and shrub lands.

The upper foothills sub-region is fairly limited at lower elevations (below 1500 m). Vegetation in this sub-region is predominantly coniferous forest, principally lodgepole pine. On moister areas and under a lack of fire, these forests succeed to white spruce. Coulees, north aspects and depressional areas are more likely to contain these spruce forests. Deciduous tree cover and understory species diversity are higher here than in the sub-alpine sub-region, due mainly to the warmer climate. Influences from this sub-region occur mainly in the Smoky and Sulphur river valleys near Grande Cache.

- Climate

Information on the climate of Willmore is not extensive. The weather is characterized by long, cold winters and cool, wet summers. The mean temperature in January is approximately -11°C. The mean July temperature is roughly 10°C. The result is a mean range of 21°C over a thirty-year period. In addition, the area does not have a frost-free period. Frost has been recorded in Willmore in every summer month.

- Fauna

One of the unique features of Willmore is its wildlife. Non-consumptive uses such as wildlife viewing and photography occur and, through effective wildlife management, consumptive uses such as hunting, fishing and trapping occur as well, with little conflict. It is important to note that the three other wilderness areas in Alberta, which were established under the Wilderness Areas, Ecological Reserves and Natural Areas Act, do not allow hunting, fishing or trapping. Only Willmore allows visitors to return to a wilderness environment with the opportunity live the way their ancestors did.

Mammal species found in Willmore are mountain caribou, moose, elk, bighorn sheep, mountain goats, grizzly bear, black bear, cougar, wolves, and numerous small fur-bearers. Many boreal and mountain bird species add to the aesthetic value of Willmore. These birds and mammals have definite economic value for hunters, trappers, guides and outfitters, as well as incalculable aesthetic value for all Park users. Willmore is one of the last unexploited wildlife habitats in the region. If populations and habitats outside Willmore should decline or become locally eradicated, the Park may eventually serve as a source of dispersal for wildlife to re-populate depleted areas adjacent to it.

- Fish

The majority of the rivers and streams in Willmore have low productivity because of limiting factors such as cold temperatures, low nutrient levels and a meagre food supply. Mountain streams are fast flowing and have shallow headwaters, which are unsuitable for winter habitat. Stream channels are often extensively braided, with limited bank cover and few deep pools. The cold water, lack of nutrients and short growing season results in relatively slow growth rates.

Although there is little information about the lakes in Willmore, they are subject to the same influences as the rivers and streams and generally have low fish productivity as well.

The predominant fish species in Willmore is bull trout, which is a threatened species in Alberta. Anglers are, therefore, encouraged to practice catch-and-release when fishing for them.

- Fur

Currently, Willmore Wilderness Park supports several active trap lines. The predominant fur-bearers harvested include marten, squirrel, lynx, wolf and coyote. Long distances from road access makes it difficult to operate some trap lines without snowmobile transportation. In some cases, permits are issued for snowmobile use in the Park, where such use by trappers is justified.

Legislation

Willmore Wilderness Park is administered by Alberta Environment under the provisions of the Willmore Wilderness Park Act. The Act defines Park boundaries, sets management goals, and provides the Lieutenant Governor in Council with the authority to change Park boundaries and implement regulations relating to use of the Park. Before 1995, the Act did not restrict mineral exploration and industrial activity in the Park, although unwritten Government policy had eliminated all exploration activity having the potential to cause environmental damage. As well, the Policy for Resource Management of the Eastern Slopes, Revised 1984, delineates most of the Park as Prime Protection, Zone 1, within which mineral exploration is considered incompatible.

The Willmore Wilderness Park Act was amended in October 1995. This was done to prohibit industrial activity and mineral exploration in Willmore, to preclude issuing of dispositions under the Public Lands and Mines and Minerals Acts, and to prohibit the issuing of timber dispositions under the Forests Act. Trapping, commercial trail riding and guiding and outfitting operations continue to be permitted activities in the Park.

The Forest Land Use and Management Regulations, approved in 1976 under the Forests Act, also relate to the administration of Willmore. These regulations provide authority to restrict motorized vehicle use in the Park, provide protection for natural resources, and prohibit erecting any structures other than tents. The operation of motorized vehicles and off-highway vehicles is prohibited under Section 3 of the Forest Land Use and Management Regulations, with certain exceptions. Such vehicles are permitted in the Park for rescue purposes, prevention or extinguishing of forest fires, and natural resource management. The Assistant Deputy Minister, Land and Forest Service may give written permission allowing motorized vehicle use for other purposes, under extenuating circumstances, such as when trappers require the use of snowmobiles to service trap lines.

Two federal Acts also have implications with respect to management of Willmore. Under the authority of the Federal Aeronautics Act, an order was issued in 1966 prohibiting the taking off or landing of aircraft at any time within the Park without permission (Order No. SOR/66-406).

The Canada Shipping Act, through an order in 1978, amended the Boating Restriction Regulations to eliminate all motorized boat use on the Smoky and Berland Rivers within Willmore (Order in Council P.C. 1978-3636).

Historical Features

- Trails

  Early civilization left few records in the Willmore area, however, archaeological finds have proven that natives inhabited the region as early as 10,000 years ago. These people followed the annual migration of big game herds such as buffalo and Rocky Mountain bighorn sheep from high mountain meadows in the summer to the protected lower slopes and valleys in the winter.

  The fur trade brought the first Europeans to the area. The town of Grande Cache derives its name from the large fur cache held there during the early fur trade era. From Grande Cache, fur traders travelled to trading posts at Dunvegan to the north, Jasper to the south, Lac Ste. Anne to the east, and McBride and Tete Jaune Cache to west. These early trading activities created the network of trails in Willmore that forms the basis for the existing trail system.

There are approximately 750 kilometres of trails in Willmore. These trails provide access along all of the major eastern valleys and form connections between valleys via high mountain passes. West of the Smoky River, relatively few trails exist. This is mainly because the eastern ranges have the largest game concentrations and thus receive the most use from outfitters. The rugged terrain of the western portion of the Park, with its higher mountain ranges and heavily forested valleys, makes access difficult and, as a result, only a small number of trails have been developed west of the Smoky.

The first district forest ranger in the Willmore Wilderness Park region was James Shand-Harvey, who was responsible for the district of Rock Lake/Grande Cache. Soon after his arrival, he began improving the network of trails and building bridges. Maintenance of the trails continued in Willmore until the 1960's.

➢ Cabins

Along the original pack trails, forestry cabins were constructed to serve as stopover shelters during fire patrols of the Park. Although many of these old cabins have been vandalized or burned, there are still cabins at Big Grave Flats (Sulphur Cabin), Sheep Creek, Mile 58 (Summit Cabin), Adams Creek and Clarke's Crossing. Forestry cabins are closed to the public, but they are sometimes used in emergencies.

Old coal mining cabins are located adjacent to Thoreau Creek Pass Trail. These cabins are excellent subjects for photographers and painters. In addition, a number of old trapper's cabins in advanced stages of decay exist throughout the Park.

➢ Grave Sites

There are a number of grave sites in Willmore. They include: the mother of Adam Joachim, buried 6 kilometres downstream from the Adams Creek cabin; Dolphus Agnes, buried on Sunset Meadows; a baby Delorme girl, buried on Little Grave Flats near the fork of the Sulphur River; the grave of Pierre Caraconte on Big Grave Flats; and George Hargreaves, buried on Casket Creek. The grave of Pierre Caraconte is one of the most unique historical spots within the Park. The ground was frozen at the time of his death, so a tomb of logs and rocks was constructed over the grave.

Recreational Use

Willmore Wilderness Park serves low-intensity, non-motorized types of recreational pursuits. There is no specified stay limit, although permanent camps are not permitted.

Exercise caution when locating and building campfires. During periods of high fire hazard, campfires may not be permitted. Contact either of the following ranger stations for up-to-date fire danger ratings:

Foothills Forest Area
Hinton Office
227 Kelly Road
Hinton, AB
T7V 1H2
phone: (780) 865-8267

Foothills Forest Area
Grande Cache Office
Box 239
Grande Cache, AB
T0E 0Y0
phone: (780) 827-3626

Keep in mind that only minimal trail maintenance occurs, and that there are no developed campsites in Willmore. When visiting the Park, you should be fully prepared for wilderness travel.

It is important to note that there are grizzly bears in Willmore. Use adequate safety precautions while hiking and horseback riding. Use proper food and garbage storage techniques.

Take care to prevent pollution of lakes, streams and rivers. Litter which cannot be burned must be packed out when you leave the Park.

Before visiting Willmore, inform family or friends of your intended route, camping stops and expected time of return.

- Hunting

  Hunting is a common activity in Willmore. Presently, there are hunting seasons for trophy sheep, moose, elk, white-tailed and mule deer, grizzly and black bear and cougar. Three Wildlife Management Units occur in Willmore - WMUs 440, 442 and 444. Hunters should refer to the annual Alberta Guide to Hunting to obtain detailed information regarding hunting regulations.

- Fishing

  Fishing mainly occurs along Willmore's river systems. The least accessible areas generally provide the best fishing, however, fishing is not a major attraction in the Park, due to the low productivity of the cold mountain streams.

  There is very little detailed survey information regarding the fisheries resource in Willmore, although preliminary stream surveys and outfitter interviews indicate that the most common species are bull trout, Arctic grayling, mountain whitefish and brook trout. Most of the drainages contain some of these fish, however, species composition and abundance within specific drainages is unknown.

- Staging Areas/Access Points

  There are three main access points into Willmore - Rock Lake, Big Berland and Sulphur Gates recreation areas. Rock Lake is nestled in the mountains approximately 5 km from the southeastern boundary of Willmore. The surrounding mountains provide a picturesque setting for visitors to the recreation area. The 100-unit campground located at Rock Lake provides basic facilities such as vault toilets, water wells, tap water, tables, fire rings and firewood. It also provides loading/unloading ramps, hitching rails and corrals for equestrian users. Rock Lake is a popular staging area for commercial outfitters, private equestrian users and hikers.

  Sulphur Gates staging area provides loading/unloading ramps, hitching rails, horse-holding facilities and a water trough, as well as picnic tables, fire rings and firewood. It is located 10 km

north of Grande Cache off Highway 40.

The 12-unit Big Berland campground provides basic camping facilities but no facilities for equestrian users. It is located 8 km east of the Park, adjacent to the Berland River.

Willmore is also accessible from Victor Lake, A 'La Peche Lake, Beaverdam Road, the north boundary of Jasper National Park, and from various points in British Columbia such as Mt. Robson, McBride via Holmes River, Chalco River and Cecelia Lake.

➢ Trail Use

The amount of use received by the trails in Willmore varies, depending upon location and accessibility. Since Park registration is not mandatory, hiking and trail riding use data is limited, however, commercial trail riding and user surveys done since the early 1980's indicate the following **averages**:

- 9 outfitters operating/year totalling 45 trips per season;
- 7 days/trip; and
- 2,796 user days/year.

Voluntary user surveys give the following **averages:**

- 180 surveys completed/year;
- 33% of use is by local people;
- 57% of use is by Albertans;
- 9% of use is by out-of-province visitors;
- 53% of use is by hikers/mountain bikes;
- 46% of use is equestrian; and
- average party size is 5 people.

Travel between Jasper National Park and Willmore occurs as well. National Park records indicate that 89 hikers travelled between Jasper and Willmore during the summer of 1979. Backcountry travel in Jasper is also restricted to foot or horseback.

Trail Lengths and Descriptions

Use Willmore map for reference (a 1:126,720-scale topographic map of Willmore Wilderness Park may be obtained from any of the various retail map dealers located throughout the province). Contact Hinton or Grande Cache ranger station for current trail conditions.

- **Mountain Trail**

  Length: 95 km

  Description: Mountain Trail provides central access through Willmore from Rock Lake to Grande Cache. It is the longest and most continuous trail in the Park. It is heavily used, both as a destination and a day use trail. Most of the day trips occur on the trail's southeast tip.

- **Indian Trail**

  Length: 33 km

  Description: This major route is used by outfitters for hunting and scenic viewing, private horse outfits and backpackers. The trail is in good condition and provides access to some of the most scenic areas of the Park.

- **West Sulphur Trail** (includes 3 km section from Zenda Creek)

  Length: 9 km

  Description: West Sulphur Trail provides access into high alpine country, for both hikers and equestrian users. It is used primarily for scenic viewing in the summer and hunting in the fall. The trail crosses into Jasper National Park.

- **Carson Creek Trail from Minny Ridge Pass**

  Length: 8 km

  Description: Carson Creek Trail begins 12 km from the Rock Lake staging area, resulting in heavy use by hunters and trail riders. This short trail is characterised by deep multiple treads.

- **Seep Creek Trail**

  Length: 4 km

  Description: Seep Creek Trail is heavily used due to its proximity to Rock Lake and the access it provides to good game country. The trail is in relatively good condition.

- **Berland Trail**

  Length: 26.5 km

  Description: Berland Trail serves as one of the main arteries into the Park. It is heavily used by outfitters as an access route to higher hunting areas. Following this trail involves numerous crossings of the Berland River, which is very cold and fast.

- **Lower Sheep Creek Trail**

  Length: 15 km

  Description: Sheep Creek Trail provides the main access into Willmore north of the Smoky River. It starts at Hell's Gate near Grande Cache, goes along the Smoky River to Clarke's Crossing, then northwest to Sheep Creek Cabin and, finally, west to the headwaters of Sheep Creek and B.C. This lower portion receives heavy use and is subject to moderate levels of day use activity. The crossing of the Muddywater River can be very treacherous. Caution is advised.

- **Central Sheep Creek Trail**

  Length: 25 km

  Description: The central portion of Sheep Creek Trail begins at Clarke's Crossing (km 15) and follows an old, upgraded access road to Sheep Creek Cabin. This section of Sheep Creek Trail receives no day use and only moderate use overall.

- **Headwaters Sheep Creek Trail**

  Length: 25 km

  Description: The headwaters portion of Sheep Creek Trail begins at Sheep Creek Cabin (km 40) and provides access to the headwaters of Sheep Creek and to B.C. It is extremely wet and receives only light use.

- **Muskeg River Trail**

  Length: 32 km

  Description: Muskeg River Trail connects the eastern foothills with the higher alpine country of Snow Creek and Rocky Pass. It joins with Rocky Pass and receives moderate use.

- **Rocky Pass Trail**

  Length: 10 km

  Description: Rocky Pass Trail travels through very scenic alpine country, connecting the Muskeg and Sulphur Rivers. It is used in both spring and fall for hunting, and in the summer for scenic outfitting trips from Grande Cache.

- **Pope Thoreau Trail**

  Length: 14.5 km

  Description: Pope Thoreau Trail serves as both an access route to hunting areas and as a link between the Berland and Wildhay Rivers. Most of the traffic the trail receives occurs in the spring and fall, with a few trail riders using the trail in the summer for sight-seeing.

- **Jackknife Pass Trail**

  Length: 9.5 km

  Description: Jackknife Pass Trail connects two major watersheds, the North Berland and Sulphur. The trail is in fairly good condition and receives light use.

- **Glacier Pass Trail**

  Length: 16 km

  Description: Glacier Pass Trail serves primarily as a link between Willmore and Jasper National Park, and for access to the high country in the pass. Both backpackers and outfitters use this trail.

- **Walton Creek Trail**

  Length: 12 km

  Description: Walton Creek Trail links Mountain Trail with the Muskeg River.

- **Adams Creek Trail**

  Length: 15 km

  Description: Adams Creek Trail is used occasionally as an access route between the Muskeg and Berland Rivers. In the past, some hunting parties have stopped in the area of the pass, but this is not the case at present. Currently, most traffic is day use from the Berland end of the trail.

- **Monaghan Creek Trail**

  Length: 12 km

  Description: Monaghan Creek Trail receives light use, mainly from hunters in the spring and fall. The difficult trail over the pass into West Sulphur makes the alpine area more attractive as a day use area for equestrian users coming up the creek from the Sulphur River.

- **Sunset and North Berland Trails**

  Length: Sunset 16 km
  North Berland 10 km

  Description: Sunset Creek Trail is difficult to follow because of the many beaver dams. North Berland Trail is easier to follow and, consequently, receives more use.

- **South Kvass Trail**

  Length: 8 km

  Description: South Kvass Trail provides access, primarily in the spring and fall, to the north end of Hardscrabble Creek. The trail receives light use and is, in some places, difficult to find, especially on the extreme eastern and western ends.

- **Casket Creek Trail**

  Length: 10 km

  Description: Casket Creek Trail is used occasionally by outfitters from Alberta and British Columbia. For the most part, the trail receives only light use and is in good condition.

- **North Kvass Trail**

  Length: 14 km

  Description: In the past, North Kvass Trail provided access from the Smoky River through to Sulphur Cabin. Since the Smoky River is extremely difficult to cross, the trail now receives only light use.